REMARKS

Claims 1-10 remain pending in the above-identified application and stand ready for further action on the merits.

Claim Rejections – 35 USC § 103(a)

Claims 1 and 3-10 have been rejected under the provisions of 35 USC § 103(a) as being unpatentable over **Kobayashi et al.** (US 6,284,361) in view of **Eichorst** (US 5,726,001), **Yamaguchi et al.** (US 4,617,226) and **Zinbo** (US 6,312,796).

Claim 2 has been rejected under the provisions of 35 USC § 103(a) as being unpatentable over **Kobayashi et al.** (US 6,284,361) in view of **Eichorst** (US 5,726,001), **Yamaguchi et al.** (US 4,617,226) and **Zinbo** (US 6,312,796), further in view of **Kolb et al.** (US 6,733,906).

Reconsideration and withdraw of each of the above rejections is respectfully requested based on the following considerations.

Incorporation of Earlier Remarks

In a non-final office action dated March 20, 2006, the USPTO Examiner set forth the same rejections under 35 USC § 103(a) that are being repeated in the instant office action.

As such, applicants herein incorporate-by-reference, in there entirety, comments and remarks set forth at page 4, line 17 to page 10, line 3 of the Applicants earlier reply of July 20, 2006, since such comments and remarks remain pertinent to overcome each of the above rejections that have been set forth under the provisions of 35 USC §103(a).

The Examiner is respectfully requested to review the incorporated remarks at this time, as they remain relevant to a consideration of the patentability and non-obviousness of the instant invention over the cited art of record.

Legal Standard for Determining Prima Facie Obviousness

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

"There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.). The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

"In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Distinctions Over the Cited Art

The characteristics of the present invention resides in that the upper magnetic layer has an average dry thickness d of 5 to 100 nm and the intermediate binder layer has an average dry thickness of 10 to less than 50 nm. These dry thicknesses are measured after the layers are

oriented in a magnetic field, dried and calendered as described at page 38, lines 18-23 of the specification.

> *"...Further, the coating compositions for the upper magnetic layer and the intermediate binder layer were simultaneously applied and superposed on the lower non-magnetic layer so that the upper magnetic layer and the intermediate binder layer could have thickness of 60 nm and 10 nm, respectively, after oriented in a magnetic field, dried and calendered."* ***(See page 38, lines 18-23.)***

Since the intermediate binder layer having the above average dry thickness after being calendered is provided, the magnetic tape of the present invention achieves advantageous effects, such as those described in page 31, line 16 to page 31 line 17, and page 33, lines 18-27 of the specification, which are reproduced below for the Examiner's convenience.

> *"When no intermediate binder layer is provided, it is impossible to smoothen the interface between the upper magnetic layer and the lower non-magnetic layer, although it is possible to smoothen the surface of the upper magnetic layer by calendering in the prior art. As a result, the surface of the upper magnetic layer is smoothened, while the interface between the upper magnetic layer and the lower non-magnetic layer is waved, which leads to variation in the thickness of the upper magnetic layer.*
>
> *By contrast, the following effects can be produced by providing an intermediate binder layer according to the present invention. Essentially, the waving of the surface of the lower non-magnetic layer can be evened during a coating operation. In addition, the interposing of the intermediate binder layer is effective to suppress the variation in the thickness of the upper magnetic layer to a minimum. This is because the intermediate binder layer contains substantially no filler and therefore has high degree of freedom in deformation due to heating, so that the waving of the lower non-magnetic layer can be compensated during the calendering operation, with the result that the upper magnetic layer and also the interface between the upper magnetic layer and the intermediate binder layer are smoothened and evened. Further, the interposing of the intermediate binder layer as in the magnetic recording medium of the present invention is effective to increase the saturation magnetic flux density of the upper magnetic layer even under the same calendering conditions, so that the surface roughness of the upper magnetic layer can be decreased."* ***(See page 31, line 16 to page 31 line 17.)***

> *"Further to the above conditions, the Young's modulus of the lower non-magnetic layer is preferably 60 to 99% of the Young's modulus of the upper magnetic layer; and the Young's modulus of the intermediate binder layer is preferably 10 to 60 % of the Young's modulus of the upper magnetic layer. When the Young's modulus of each of the intermediate binder layer and the lower non-magnetic layer is lower than the Young's modulus of the magnetic layer, the intermediate binder and the lower non-magnetic layer function as a kind of cushion during the calendering treatment."* ***(See page 33, lines 18-27.)***

None of the prior art describes or suggests the advantageous effects achieved by the present invention or how to achieve such effects. Accordingly, it is submitted that the cited art of record completely fails to render the instant invention obvious, as it provides no teachings, suggestion or motivation that would allow one of ordinary skill in the art to arrive at the instant invention as claimed, including the unexpected and advantageous properties that are possessed thereby.

CONCLUSION

Based on the above considerations, the Examiner is respectfully requested to issue a Notice of Allowance in the matter of the instant application, clearly indicating that each of instantly pending claims 1-10 are allowed and patentable under the provisions of Title 35 of the United States Code. Any contentions to the contrary are respectfully requested to be reconsidered at present.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: February 26, 2007

Respectfully submitted,

By _____

John W. Bailey
Registration No.: 32,881
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant

JWB/enm